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Claims

1. A graft comprising flow tubing having a tubing portion defining a flow lumen, the flow lumen of said tubing portion being substantially free of ribs or grooves, wherein the centre line of the flow lumen follows a substantially helical path with a helix angle less than or equal to  $65^\circ$ , and wherein the amplitude of the helix is less than or equal to one half of the internal diameter of the tubing portion.
2. A graft as claimed in claim 1, wherein the amplitude of the helical centre line divided by the internal diameter of the tubing is at least 0.05.
3. A graft comprising flow tubing having a tubing portion defining a flow lumen, wherein the centre line of the flow lumen follows a substantially helical path with a helix angle less than or equal to  $65^\circ$ , wherein the amplitude of the helical centre line is less than or equal to one half of the internal diameter of the tubing portion, and wherein the amplitude of the helical centre line is more than or equal to 0.05 of the internal diameter of the tubing portion.
4. A graft comprising flow tubing having a tubing portion, the tubing portion comprising a wall defining a longitudinally extending flow lumen which is substantially free of ribs or grooves, the flow lumen having a centre line following a substantially helical path, and the wall having a helical portion extending longitudinally and circumferentially so as to resist reduction of the amplitude of the helical centre line.
5. A graft as claimed in claim 4, wherein the helical portion is thicker in the radial direction than adjacent portions of the tubing wall.

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6. A graft as claimed in claim 4 or 5, wherein the helical portion is made from a material different from that of adjacent portions of the tubing wall.
- 5 7. A graft as claimed in claim 4, 5 or 6, wherein the amplitude of the helical centre line divided by the internal diameter of the tubing is at least 0.05.
- 10 8. A graft as claimed in any preceding claim, wherein the helix angle is less than or equal to 15°.
9. A graft as claimed in any preceding claim, wherein the flow lumen of the tubing portion is of substantially circular cross-section.
- 15 10. A graft as claimed in any of claims 1 to 9, wherein the tubing portion forms just part of the overall length of the tubing.
- 20 11. A graft as claimed in any of claims 1 to 9, wherein the tubing portion extends over substantially the entire length of the tubing.
- 25 12. A graft as claimed in any preceding claim, wherein the centre line of the tubing portion follows a substantially helical path about an axis which is curved.
- 30 13. A graft as claimed in any preceding claim, comprising a pharmaceutical coating.
- 35 14. A method of making a graft, the method comprising positioning a generally tubular, flexible wall adjacent to a further flexible member, twisting the tubular flexible wall and the flexible member around each other, and causing the tubular flexible wall to retain, at least partly, the twisted shape.

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15. A method as claimed in claim 14, further comprising providing the tubular flexible wall with a helical portion extending longitudinally and circumferentially of the wall and for assisting in retaining the twisted shape.

16. A method as claimed in claim 15, wherein the helical portion is positioned to lie adjacent to the flexible member.

17. A method of making a graft, the method comprising providing a helical mandrel having a centre line following a substantially helical path, providing a generally tubular, flexible wall having a longitudinally extending cavity, positioning the tubular wall adjacent to the helical mandrel to cause the longitudinally extending cavity to have a centre line following a substantially helical path, and causing the tubular wall to retain, at least partly, the shape with the longitudinally extending helical cavity.

18. A method as claimed in claim 17, wherein the helical mandrel extends longitudinally and circumferentially around a cylindrical space which defines a core of the helical mandrel, and wherein the outside diameter of the tubular wall is greater than the diameter of the core of the helical mandrel.

19. A method as claimed in claim 17 or 18, wherein the tubular wall and the helical mandrel are moved in the longitudinal direction relative to each other.

20. A method of making a graft, the method comprising providing a mandrel, providing a generally tubular, flexible wall having a longitudinally extending cavity, winding the tubular wall around the mandrel to extend circumferentially and longitudinally thereof so as to

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cause the tubular wall to define a first shape in which its longitudinally extending cavity has a centre line following a substantially helical path, setting the tubular wall, and separating the tubular wall from the mandrel so as to allow the amplitude of the helical  
5 centre line to reduce whereby the tubular wall adopts a second shape in which the amplitude of the helical centre line is less than or equal to one half of the internal diameter of the tubular wall.

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21. A method as claimed in claim 20, wherein the mandrel comprises guide means to aid the winding of the tubular wall around the mandrel.

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22. A method of making a graft, the method comprising arranging an elongate member helically along a generally tubular, flexible wall so that the elongate member extends longitudinally and circumferentially of the tubular wall, tensioning the elongate member to cause  
20 the wall to define a longitudinally extending cavity having a centre line following a substantially helical path, and causing the wall to retain, at least partly, the shape with the longitudinally extending helical cavity.

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23. A method as claimed in any of claims 14 to 22, wherein the tubular wall is reinforced to assist it in maintaining its cross-sectional shape.

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24. A method as claimed in claim 23, wherein the tubular wall is reinforced by inserting therein a removable internal support.

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25. A method of making a graft, the method comprising providing a generally tubular wall with a helical portion extending longitudinally and circumferentially, the helical portion being less extensible than adjacent

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portions of the wall, and radially expanding the wall, whereby the helical portion causes the wall to define a longitudinally extending cavity having a centre line following a substantially helical path.

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26. A method as claimed in claim 25, further comprising causing the tubular wall to retain, at least partly, the shape with the longitudinally extending helical cavity.

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27. A method as claimed in any of claims 14 to 26, comprising thermosetting the tubular wall.